

**Virginia Department of Health – TB Control and Prevention Program**  
**Recommended Sample Collection Schedule for Monitoring Smear and Culture Conversion in Pulmonary TB Cases**

| Purpose   | Monitoring  | Frequency   | Number of specimens  | Comments  |   |
|---|---|---|--|---|---|
| To determine infectiousness<br><br>and<br>confirmation of TB disease  | Initial contact with client   | Collect 3 consecutive specimens   | Minimum of 3 samples, with one collected in the early morning.<br><br>If diagnosis has been <b>confirmed</b> before the client is reported, collect 3 additional specimens to determine if infectious. | At least one specimen collection should be observed / coached by HD staff.<br><br>At minimum, samples should be at least 8 hours apart.   |   |
| To establish earliest date a client can be removed from isolation   | Initial monitoring for smear conversion   | Initial & Follow-up Sputum Smear Results  | Collect 1 specimen at each collection until smear conversion imminent  | Single specimens should be observed by HD staff.<br><br>Refer to “Controlling Tuberculosis in the United States,” 11/4/2005, Vol. 54, No. RR-12, Page 9, Box 3 for alternate criteria for isolation release.  |   |
|   |   | 3+ to 4+  | Every two weeks  |   | Total number of specimens will vary from client to client |
|   |   | Rare to 2+  | weekly   |   |   |
|   | Imminent smear conversion (1 <sup>st</sup> negative or with rare or +/- AFB on smear) | Collect 1 specimen every few days or weekly. Once a negative result is obtained, collect 2 additional specimens.  | Until 3 consecutive smears are negative (if any subsequent samples are smear positive, continue weekly collection)   |   |   |
| To monitor for response to treatment and determine the need for extension of treatment<br><br>and<br>For test of cure | Culture conversion  | Continue to collect one sample every 7-10 days until smear conversion is documented.<br><br>Additionally ensure collection of 2 sputum samples between days 55-60 after treatment was initiated.<br><br>Following day 60 after treatment initiation, collect 1 sputum sample every 2-3 weeks until 2 consecutive negative culture results are reported with no positive culture results thereafter. | Until 2 consecutive sputum <u>cultures</u> are negative  | Single specimens should be observed by HD staff<br><br>Perform sputum induction if unable to produce sputa spontaneously. Several induction attempts on different days should be undertaken before deciding that a client can no longer produce sputum. |   |
|   | Test of Cure  | For patients with MDR-TB; documented resistance to more than 1 anti-TB drug (do not count SM); or extensive disease, continue to collect a cluster of 3 sputa samples monthly.  | Continue monthly collection until treatment completion.<br><br>If client is unable to produce sputum, sputum induction should be attempted.  | When collecting a cluster of specimens, at least one should be observed by HD staff.<br><br>Several induction attempts on different days should be undertaken before deciding that a client can no longer produce sputum.                               |   |